

### REMARKS

Applicant has carefully studied the Office Action of 10 September 2002 and offers the following remarks to accompany the above amendments. The Patent Office raised a number of objections at the beginning of the Office Action.

Applicant herein submits new formal Figures 1, 5, 6, and 9-11 which include the missing reference numerals and corrects "DGW" to "EOGW." Applicant further changes the drawings to correct some missing labels. Specifically, Figure 5 has been amended such that element B is labeled "request confirmed" as indicated at page 15, line 21 of the specification; and element Y has been changed to station start media "transmission" rather than "reception." This is supported by the language at page 17, line 5 of the specification. Figure 6 has been changed to label element T "connect," which is supported at page 18, line 18 of the specification. Figure 9 is changed to include the labels A-T. Support for this can be found at page 22, line 23 to page 24, line 19. Figure 10 has been changed such that the T1 channels are called "T1 trunk channels" conforming to page 27, line 2. Figure 11 has been amended to reflect labels A-R. Support for this can be found at page 27, line 23-page 30, line 10. No new matter has been added. The drawings have been brought into conformance with the language of the specification.

Applicant amends several paragraphs of the specification to provide consistent terminology for the elements described therein. Specifically, the term "node" was used when elements 200, 300, 400, and 500 were introduced, but nowhere else in the paragraphs. Applicant amends the introductory sentences to make the terminology consistent while preserving the appellation of "node" for these elements. No new matter is added.

Claim 2 was objected to for the use of "a an" in line 9. Applicant herein amends claim 2 to delete the extra "a."

Claims 1-51 were provisionally rejected under 35 U.S.C. § 101 under a same invention double patenting grounds in view of the parent application 09/218,808. Applicant acknowledges this provisional rejection, and will address this if it becomes a non-provisional rejection.

Claims 1-7, 13-19, 21-27, 33-39, and 45-51 were rejected under 35 U.S.C. § 103 as being unpatentable over Lu et al. in view of Lee et al. As in the parent case, the Examiner cites Lee et al. as teaching the IP network for connecting cellular users to an end office that is not taught by Lu et al.

However, Applicant submits that the subject invention was conceived at least as early as March 20, 1998. In support thereof, Applicant submits a copy of the declaration under 37 C.F.R. § 1.131 filed in the parent case to establish conception of the subject invention as early as March of 1998.

Applicant submits that the invention disclosure, dated 20 March 1998, clearly demonstrates the claimed use of the packet network (IP network) for which Lee et al. is being cited. See also the copy of the declaration by J. Erik Fako, attached herewith, the original being filed in the parent case.

In contrast, Lee et al. has a filing date of 23 November 1998. Accordingly, Lee et al. is not available as prior art.

Given the Examiner's admission that Lu et al. did not teach that services are provided using a packet network, in the absence of Lee et al. as prior art, the rejection under 35 U.S.C. § 103 is not supported, should be withdrawn, and claims 1-7, 13-19, 21-27, 333-39, and 45-51 be allowed. Moreover, claims 8-12, 20, 28-32, and 40-44 depend from allowable claims and are therefore also allowable.

Applicant appreciates the phone call with the Examiner on 10 December 2002 when the priority date of the claims was discussed. Specifically, the Examiner indicated that the claims were fully supported in the parent application based on the specification and drawings filed in the parent case.

Applicant requests claim allowance at the Examiner's earliest convenience.

CERTIFICATE OF MAILING	
I HEREBY CERTIFY THAT THIS DOCUMENT IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST-CLASS MAIL, IN AN ENVELOPE ADDRESSED TO: COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231, ON DECEMBER 10, 2002.	
<u>Kelly Farrow</u>	_____ Name of Depositor
<u>[Signature]</u>	_____ Signature
<u>12/10/02</u>	_____ Date of Signature

Respectfully submitted,

WITHROW & TERRANOVA, P.L.L.C.

By: [Signature]

Benjamin S. Withrow  
Registration No. 40,876  
P.O. Box 1287  
Cary, NC 27512  
Telephone: (919) 654-4520

Date: 10 December 2002  
Attorney Docket: 7000-216

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

### In the specification:

Please replace the paragraph beginning on page 11, line 15, with the following rewritten paragraph:

-- Base station controller gateway (BGW) [node] 200 is a node that serves as the gateway between an existing base station controller (BCS) 210 and *IP* network 100. Base station controller gateway 200 provides T1 voice and call control ports to the base station controller 210 as well as *IP* ports to *IP* network 100. Base station controller gateway 200 is responsible for providing clients that support interworking between the A-interface signaling protocols (e.g., *IS-634* for *CDMA*) from base station controller 210 and the *IP* network protocol (e.g., *H.323*, *H.225*, *H.245*, *SIP*, *MGCP*) 100. Base station controller gateway 200 communicates with [the] a mobility gatekeeper (GK) 500 for zone management purposes including, but not limited to, authentication, registration mobility services, and handoffs. Base station controller gateway 200 is also responsible for implementing speech vocoding algorithms (e.g., *G.711*, *G.723*, *G.729*, et al.) into *IP* network 100 and potentially maintains visitor location register (VLR) information for mobiles 220 served by base station controller 210. Lastly, base station controller gateway 200 establishes media channels between base station controller 210 and *IP* network 100 using protocols such as *H.245*--.

Please replace the paragraph beginning on page 12, line 5, with the following rewritten paragraph:

-- End office gateway (EOGW) [node] 300 is a node that serves as the gateway component between an end office telephony switch (EOTS) 310 and *IP* network 100. End office gateway 300 provides T1 voice and call control ports to a line trunk controller interface (LTCl) within end office telephony switch 310 as well as providing *IP* ports to *IP* network 100. End office gateway 300 (using *H.323* for example), is responsible for receiving call control and speech packet messages from *IP* network 100 and translating the messages into *Q.931* call control signaling messages. On mobile terminations, *Q.931* termination messages are delivered to mobility gatekeeper 500 for mobile call delivery purposes. Lastly, the end office gateway 300 establishes media channels through the *IP* network 100 between the line trunk controller

interface within end office telephony switch 310 and the gateway which is currently serving the mobile, such as a base station controller gateway. Protocols such as *H.245* are used to establish the media channel.--.

Please replace the paragraph beginning on page 12, line 18, with the following rewritten paragraph:

-- Mobile switching center gateway (MGW) [node] 400 is a node that serves as the gateway component between a mobile switching center (MSC) 410, such as a legacy *CDMA*, *GSM*, or *TDMA* mobile switching center, and the *IP* network 100. Mobile switching center gateway 400 provides T1 voice trunks to mobile switching center 410 as well as providing *IP* ports to *IP* network 100. Mobile switching center gateway 400 supports inter-system handoffs between a base station controller 210 served by *IP* network 100 and a base station controller which is not on the data network, such as a base station controller associated with a legacy mobile switching center 410 in the public switching telephone network (PSTN) 320. Mobile switching center gateway 400 also establishes trunk connections to mobile switching center 410 for speech connectivity whenever an interaction is required.--.

Please replace the paragraph beginning on page 13, line 4, with the following rewritten paragraph:

-- Mobility gatekeeper (GK) [node] 500 is a node that is the component responsible for establishing connections between two (2) *IP* network call endpoints, as well as providing a platform for network mobility services. Mobility gatekeeper 500 provides an *IS-41* interface via an *IS-41*/cellular network 510 to home location register 520 in order to retrieve mobile subscriber data. Mobility gatekeeper 500 supports all network based mobility functions and services, including call delivery, handoff registration, and *IS-41* messaging. On call originations, mobility gatekeeper 500 receives a setup message from the originating base station controller gateway 200 and routes the message to the end office gateway 300 providing service to the subscriber. On termination, mobility gatekeeper 500 receives termination setup messages and interfaces with the *IS-41* network 510 to determine the location of the serving base station controller 210. Mobility gatekeeper 500 routes the *H.323* termination setup messages through *IP* network 100 to the serving base station controller 210, or to a mobility gatekeeper on an inter-connected data

network that contains the serving enhanced base station controller / base station controller gateway. Lastly, mobility gatekeeper 500 provides the interface to home location register 520 for registration updates that are received from base station controller 210 and base station controller gateway 200 as mobiles activate, de-activate, and roam throughout the network.--

Please replace the paragraph beginning on page 29, line 19, with the following rewritten paragraph:

-- The mobility gatekeeper examines the target cell identifier and determines that this is an inter-system handoff as opposed to an intra-network handoff. The mobility gatekeeper responds by relaying the setup message **D** to the target mobile switching center gateway. The mobile switching center gateway allocates the trunking circuit which will be used to connect to the target mobile switching center, and responds with optional call proceeding **E** and alerting **F** messages. This is followed by a connect **G** message to the mobility gatekeeper to complete the establishment of the call leg. Either the [cal] call proceeding, alerting, or connect message will include the identifier of the channel used to connect the mobile switching center gateway to the target mobile switching center. The call proceeding **H** and alerting **I** messages may optionally be tandemed to the original base station controller gateway.--

**In the claims:**

Please amend claim 2 as follows:

2. (once amended) The method of claim 1 wherein said mobility services include call origination managing, said call origination managing comprising the steps of:

(a) mapping a wireless base station controller protocol to a call control protocol utilized by said packet data network;

(b) ending call origination messages to a control node on said packet data network;

(c) sending the call origination messages to a gateway device providing access to [a] an end office telephony switch;

(d) mapping the call control protocol of the packet data network to the end office access protocol;

(e) originating a call using the end office access protocol; and

(f) routing the call from the end office telephony switch to its destination.